REMARKS

Claims 1-11 are pending. By this Amendment, Claim 1 is amended and Claims 7-11 added. As support for the amendments to Claim 1 can be found in the originally filed application, such as, for example, Figures 2-4 and support for new Claims 7-11 can be found in Claims 1-6 before the amendment to Claim 1, Applicants respectfully submit no new matter is presented herein.

Claim 2 Allowable

Applicants appreciate and acknowledge the indication by the Examiner that Claim 2, although objected to as being dependent upon a rejected base claim, would be allowable if rewritten in independent form to include all of the features of base Claim 1. In this regard, Applicants respectfully note that new independent Claim 7 corresponds to base Claim 1 and the allowable subject matter of Claim 2. Therefore, Applicants respectfully submit that Claim 7 should be deemed allowable. Moreover, new dependent Claims 8-11, which depend from Claim 7 and correspond to original Claims 3-6, should also be deemed allowable for at least the same reasons Claim 7 is allowable, as well as for the additional subject matter recited therein.

Claim Rejections – 35 U.S.C. §102

Claims 1 and 3-5 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 6,329,950 to Harrell et al. ("Harrell"). Claims 1 and 3-5 are also rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 5,714,961 to Kot et al. ("Kot"). Applicants respectfully traverse both rejections.

Claim 1 recites an on-board antenna including a radiation element provided on a dielectric substrate; a grounding conductor surrounding a periphery of an outer edge

portion of the radiation element at a position spaced away outwardly from the outer edge portion; and an inner cut-out portion completely surrounded by an inner periphery of the radiation element, wherein an entire inner area defined by an outer boundary of the inner cut-out portion exposes the dielectric substrate therethrough, and wherein the radiation element and the grounding conductor are provided on the same surface of the dielectric substrate.

Applicants respectfully submit that Harrell, as well as Kot, fail to disclose or suggest such features.

In particular, Applicants note that the Harrell antenna does not have an inner cut-out portion completely surrounded by an inner periphery of the radiation element, ***wherein an entire inner area defined by an outer boundary of the inner cut-out portion exposes the dielectric substrate therethrough***. For example, in Figure 10 of Harrell, the entire inner area defined by the outer boundary of the second insulating gap 425 includes the dielectric substrate exposed therethrough, the radiation element 422, the dielectric substrate exposed through the first insulating gap 424, the shorting element 426, and the first antenna element 420. Clearly, Harrell does not disclose or suggest an antenna having ***an entire inner area defined by an outer boundary of the first or second insulating gap (424 and 425) wherein the dielectric substrate (14) is exposed therethrough*** due to the presence of the radiation element (422) between the two insulating gaps (424 and 425), the presence of the shorting element (426), and the presence of the first antenna element (420) in the inner area defined by the first insulating gap (424).

Kot suffers from the same deficiency as Harrell. Applicants note that the Kot antenna does not have an inner cut-out portion completely surrounded by an inner periphery of the radiation element, ***wherein an entire inner area defined by an outer boundary of the inner cut-out portion exposes the dielectric substrate therethrough***. For example, in Figure 1 of Kot, the entire inner area defined by the outer boundary of the etched slot (4) includes the inner conductor (6) and the entire inner area defined by the outer boundary of the etched slot (5) includes the band conductor (7), the etched slot (4), and the inner conductor (6). Clearly, Kot does not disclose or suggest an antenna having ***an entire inner area defined by an outer boundary of the first or second etched slots (4 or 5) wherein the dielectric substrate (2) is exposed therethrough*** due to the presence of the band conductor (7) between the two slots (4 and 5) and the inner conductor (6) disposed within the area defined by the etched slot (4).

To qualify as prior art under 35 U.S.C. §102, a single reference must teach, i.e., identically describe, each feature of a rejected claim. As noted above, Harrell and Kot do not disclose or suggest each and every feature of Claim 1 since neither reference discloses or suggests an inner cut-out portion completely surrounded by an inner periphery of a radiation element, wherein an entire inner area defined by an outer boundary of the inner cut-out portion exposes a dielectric substrate therethrough. As such, Applicants respectfully submit Claim 1 is not anticipated, nor rendered obvious in view of, Harrell or Kot and should be deemed allowable.

Claims 3-5 depend from Claim 1. It is respectfully submitted that these dependent claims be deemed allowable for at least the same reasons Claim 1 is allowable as well as for the additional subject matter recited therein.

Applicants respectfully request withdrawal of both rejections.

Claim Rejections – 35 U.S.C. §103

Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over either one of Harrell or Kot in view of U.S. Patent No. 6,188,368 to Koriyama et al. ("Koriyama"). Applicants respectfully traverse both rejections.

Claim 6 depends from Claim 1 and inherently recites all of the features recited therein.

Harrell and Kot are described above.

Koriyama does not overcome the above-described deficiencies of Harrell and/or Kot since Koriyama fails to teach or suggest an inner cut-out portion completely surrounded by an inner periphery of a radiation element, wherein an entire inner area defined by an outer boundary of the inner cut-out portion exposes a dielectric substrate therethrough.

To establish *prima facie* obviousness, each and every feature of a rejected claim must be taught or suggested by the applied art. See M.P.E.P. §2143.03. As explained above, Harrell, Kot, and Koriyama, alone or in any combination, fail to teach or suggest each and every feature of Claim 1, let alone Claim 6. As such, Claim 6 should be deemed allowable for at least the same reasons Claim 1 is allowable, as well as for the additional subject matter recited therein.

Applicants respectfully request withdrawal of both rejections.

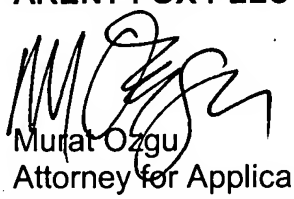
Conclusion

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding objection and rejections, allowance of the Claims 1-11, and the prompt issuance of a Notice of Allowability are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 107355-00102**.

Respectfully submitted,
ARENT FOX PLLC



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